# Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483
843 209-5784, Fax (866)-213-4614


The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 28965
JOB: 21-5964-R01
JOB NAME: 49786-0209 WOODGROVE
Wind Code: 37
Wind Speed: Vult= 115mph
Exposure Category: B
Mean Roof Height (feet): 24
These truss designs comply with IRC 2015 as well as IRC 2018.
*14 Truss Design(s)*

Trusses:
M01, R01, R02, R02B, R03, R04, R05, R06, R07, VT01, VT02, VT03, VT04, VT05


**10/11/2021**
**Mark Morris**

***Warning !—Verify design parameters and read notes before use.***

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to *Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | M01 | Monopitch | 10 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:40 2021 Page 1
ID:MPr2P9H?n?aoDn?Cktxvnlzouw4-KAYEpYCRDOvpT2Bhk_A25qBwlyRa1JPzXwpQUMyU7iD

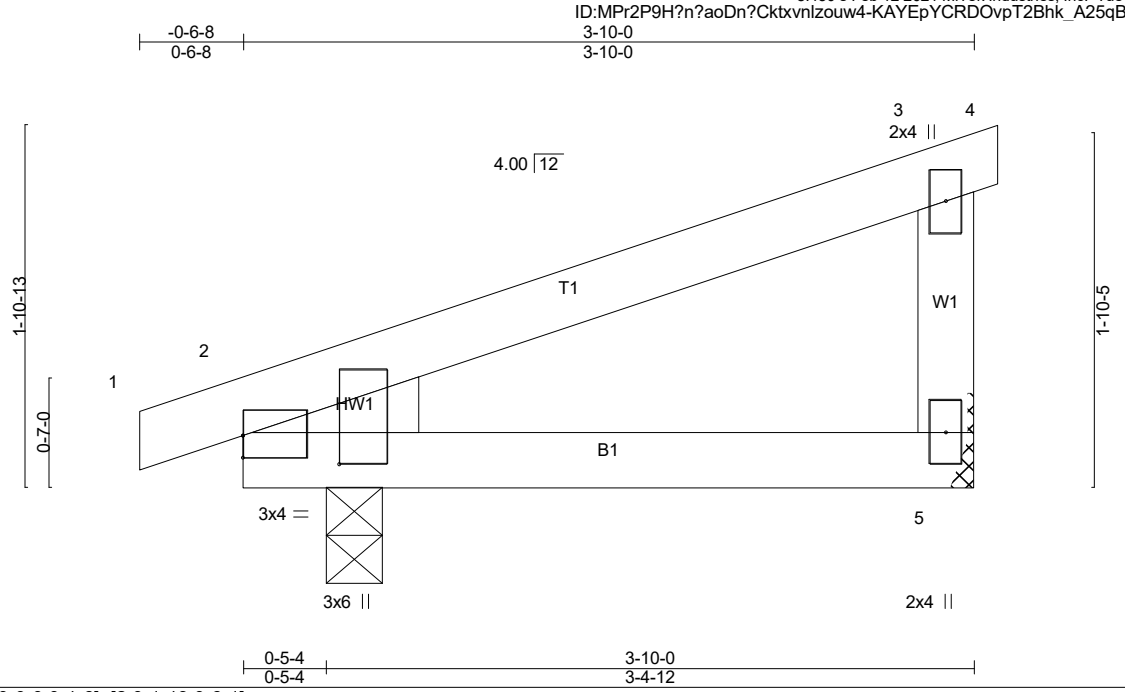



Plate Offsets (X,Y)-- [2:0-0-0,0-1-6], [2:0-1-13,0-6-1]

| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.31 | Vert(LL) | -0.01 | 2-5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(CT) | -0.02 | 2-5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 16 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

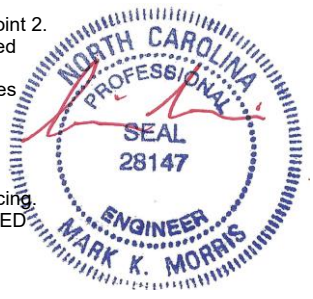
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 5=155/Mechanical, 2=186/0-3-8 (min. 0-1-8)
Max Horz 2=37(LC 14)
Max Uplift 5=-20(LC 14), 2=-17(LC 10)
Max Grav 5=206(LC 21), 2=252(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-** (10-13)
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=9ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 5 and 17 lb uplift at joint 2.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
11) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
12) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
13) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

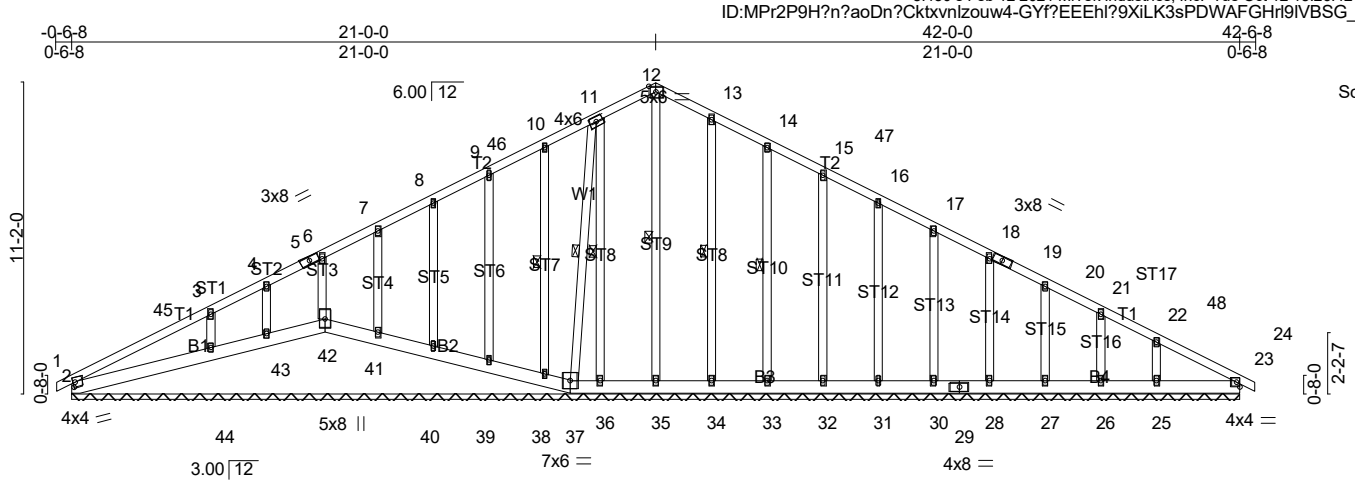



10/11/2021

**LOAD CASE(S)** Standard

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R01 | GABLE | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:42 2021 Page 1
ID:MPr2P9H?n?aoDn?Cktxvnlzouw4-GYf?EEEhl?9XiLK3sPDWAFGHrl9lVBSG_ElXYFyU7iB



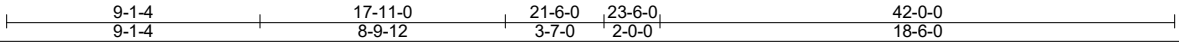




Plate Offsets (X,Y)-- [2:0-0-15,0-2-0]

| **LOADING** (psf) | | **SPACING-** 2-0-0 | **CSI.** | **DEFL.** in (loc) l/defl L/d | **PLATES** **GRIP** |
|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL 1.15 | TC 0.24 | Vert(LL) 0.00 23 n/r 180 | MT20 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL 1.15 | BC 0.12 | Vert(CT) 0.00 24 n/r 80 | |
| TCDL | 10.0 | Rep Stress Incr YES | WB 0.16 | Horz(CT) 0.01 23 n/a n/a | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | Matrix-SH | | Weight: 332 lb FT = 20% |
| BCDL | 10.0 | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 43-44.
WEBS 1 Row at midpt 12-35, 11-36, 10-38, 13-34, 14-33, 11-37

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 42-0-0.
(lb) - Max Horz 2=-131(LC 19)
Max Uplift All uplift 100 lb or less at joint(s) 2, 42, 37, 36, 38, 39, 40, 41, 43, 44, 34, 33, 32, 31, 30, 28, 27, 26, 25
Max Grav All reactions 250 lb or less at joint(s) 2, 42, 37, 23, 36, 38, 39, 40, 41, 43, 32, 31, 30, 28, 27, 26, 25 except 35=268(LC 27), 44=417(LC 34), 34=291(LC 6), 33=282(LC 6)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-44=-261/165

**NOTES-** (15-18)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 3-7-14, Exterior(2N) 3-7-14 to 16-9-10, Corner(3R) 16-9-10 to 25-0-0, Exterior(2N) 25-0-0 to 38-4-2, Corner(3E) 38-4-2 to 42-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 42, 37, 36, 38, 39, 40, 41, 43, 44, 34, 33, 32, 31, 30, 28, 27, 26, 25.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 42, 38, 39, 40, 41, 43, 44.
14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


10/11/2021

Continued on page 2

15) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
16) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
17) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
18) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R02 | Roof Special | 8 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:43 2021 Page 1
ID:MPr2P9H?n?aoDn?Cktxvnlzouw4-klDNSaEJWJHOKVvGP6kljSpHX9L0EV?PDu245hyU7iA

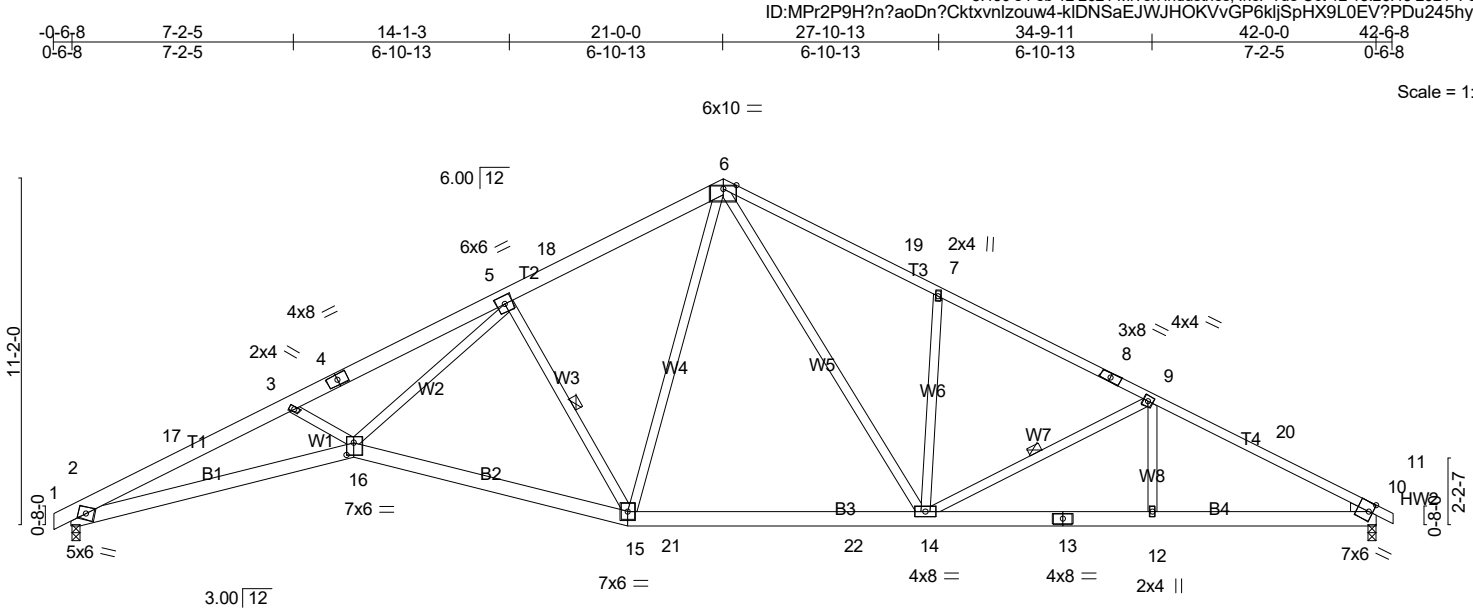



Plate Offsets (X,Y)-- [10:0-1-7,Edge], [16:0-2-12,0-4-12]

| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.95 | Vert(LL) | -0.36 | 14-15 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.76 | Vert(CT) | -0.64 | 14-15 | >777 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.71 | Horz(CT) | 0.29 | 10 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 280 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x6 SP No.2 *Except*
T3: 2x4 SP No.1, T4: 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
B1: 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
W2: 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

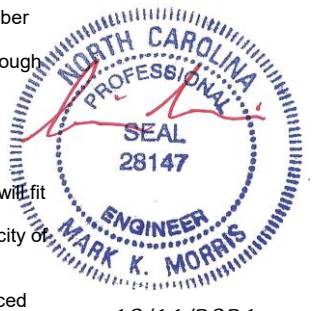
**BRACING-**
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 9-8-11 oc bracing.
WEBS 1 Row at midpt 5-15, 9-14

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1710/0-3-8 (min. 0-1-15), 10=1710/0-3-8 (min. 0-2-0)
Max Horz 2=133(LC 14)
Max Uplift2=-99(LC 14), 10=-98(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-17=-5455/781, 3-17=-5355/798, 3-4=-5155/714, 4-5=-5095/742, 5-18=-2179/426, 6-18=-2092/454, 6-19=-2402/537, 7-19=-2485/509, 7-8=-2425/428, 8-9=-2501/400, 9-20=-2959/471, 10-20=-3061/453
BOT CHORD 2-16=-642/4872, 15-16=-248/2609, 15-21=-50/1629, 21-22=-50/1629, 14-22=-50/1629, 13-14=-316/2596, 12-13=-316/2596, 10-12=-316/2596
WEBS 5-16=-323/2908, 5-15=-1454/301, 6-15=-124/927, 7-14=-510/199, 9-14=-533/167, 9-12=0/292, 6-14=-209/1082

**NOTES-** (11-14)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 3-7-14, Exterior(2N) 3-7-14 to 16-10-1, Corner(3R) 16-10-1 to 25-2-14, Exterior(2N) 25-2-14 to 38-4-2, Corner(3E) 38-4-2 to 42-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.




10/11/2021

Continued on page 2

11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

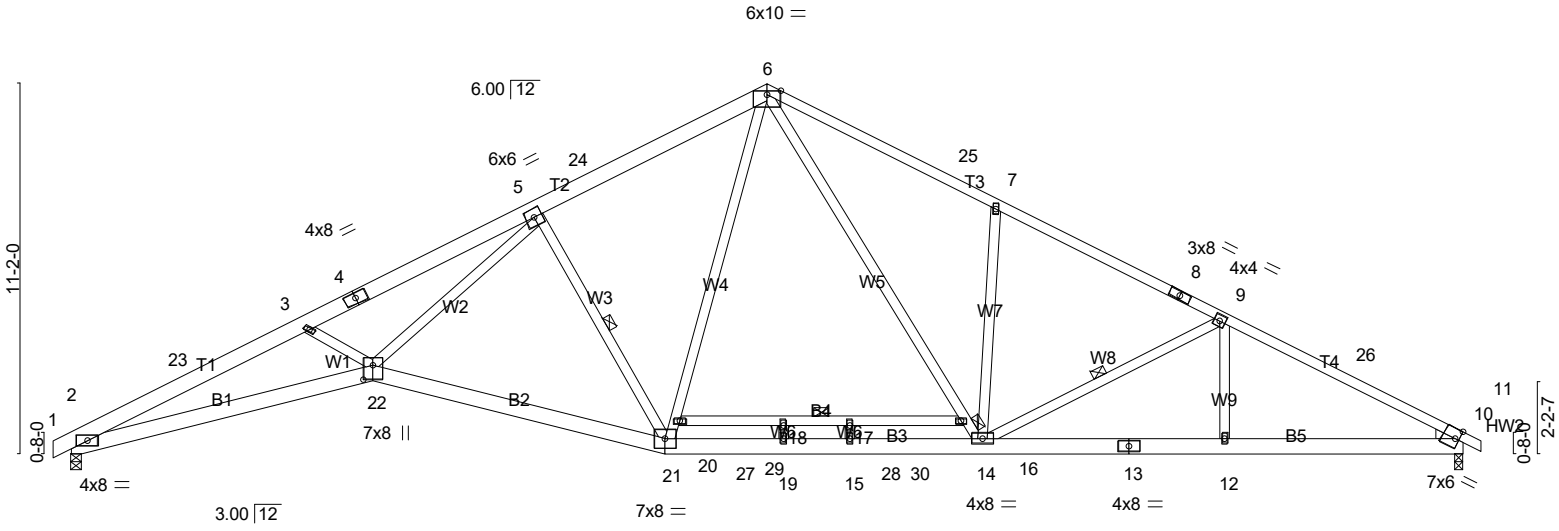

10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R02B | Roof Special | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:44 2021 Page 1
ID:MPr2P9H?n?aoDn?CktxvnlzouW4-CxnlfwFyHdPFxfUSzqF_GgLTQZgMzygYRYndd7yU7i9

-0-6-8 7-2-5 14-1-3 21-0-0 27-10-13 34-9-11 42-0-0 42-6-8
0-6-8 7-2-5 6-10-13 6-10-13 6-10-13 6-10-13 7-2-5 0-6-8

Scale = 1:69.5




9-1-4 17-11-0 21-6-0 23-6-0 27-6-0 34-9-11 42-0-0
9-1-4 8-9-12 3-7-0 2-0-0 4-0-0 7-3-11 7-2-5

Plate Offsets (X,Y)-- [10:0-1-7,Edge], [22:0-5-4,0-3-8]

| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.87 | Vert(LL) | -0.44 | 15-19 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.81 | Vert(CT) | -0.79 | 15-19 | >636 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.75 | Horz(CT) | 0.31 | 10 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-SH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 294 lb | FT = 20% |

**LUMBER-**
TOP CHORD 2x6 SP No.2 *Except*
T3: 2x4 SP SS, T4: 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
B1,B3: 2x6 SP No.1, B4: 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
W2: 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

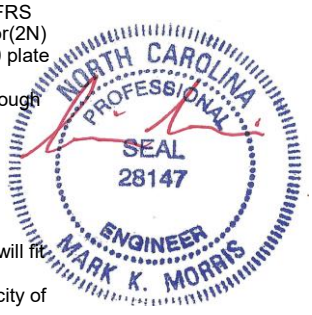
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
6-0-0 oc bracing: 16-20
WEBS 1 Row at midpt 5-21, 9-14

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1791/0-3-8 (min. 0-2-1), 10=1804/0-3-8 (min. 0-2-3)
Max Horz 2=133(LC 14)
Max Uplift 2=-59(LC 14), 10=-52(LC 15)
Max Grav 2=1801(LC 3), 10=1837(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-23=-5906/631, 3-23=-5819/648, 3-4=-5687/560, 4-5=-5640/588, 5-24=-2589/335, 6-24=-2502/364, 6-25=-2862/431, 7-25=-2944/404, 7-8=-2885/322, 8-9=-2961/294, 9-26=-3269/376, 10-26=-3353/358
BOT CHORD 2-22=-506/5291, 21-22=-155/2996, 21-27=0/1958, 19-27=0/1958, 15-19=0/1958, 15-28=0/1958, 14-28=0/1958, 13-14=-234/2868, 12-13=-234/2868, 10-12=-234/2868
WEBS 5-22=-258/3058, 5-21=-1498/279, 20-21=-101/1048, 6-20=-78/1146, 7-14=-510/199, 9-14=-506/181, 9-12=0/260, 6-16=-157/1290, 14-16=-180/1215

**NOTES-** (12-15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 3-7-9, Exterior(2N) 3-7-9 to 16-10-6, Corner(3R) 16-10-6 to 25-2-8, Exterior(2N) 25-2-8 to 38-4-7, Corner(3E) 38-4-7 to 42-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.




10/11/2021

Continued on page 2

**NOTES-** (12-15)

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R03 | Common | 4 | 1 | # 28965 |
| | | | | | Job Reference (optional) |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:45 2021 Page 1
ID:MPr2P9H?n?aoDn?Cktxvnlzouw4-g7L7tGGa2wY6Zp3eXXmDotudYz?9iRmigCXB9ayU7i8

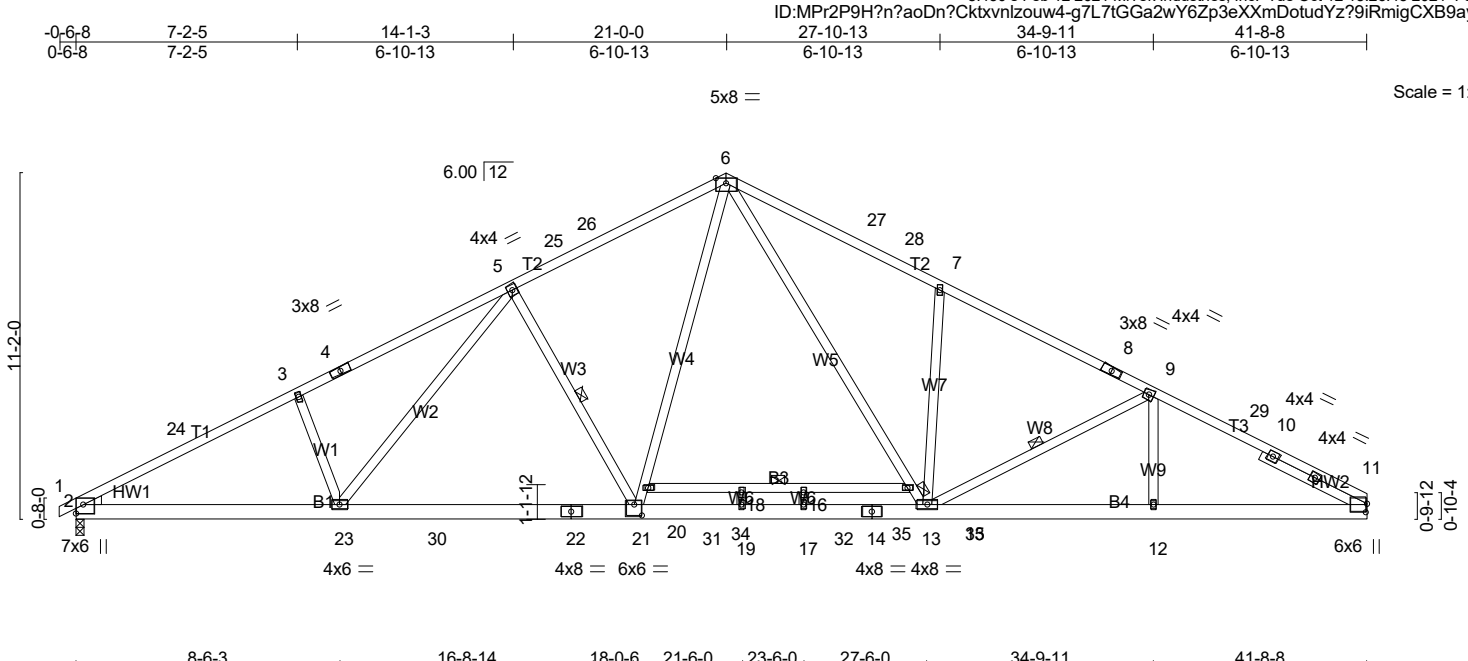



Plate Offsets (X,Y)-- [2:Edge,0-2-13], [11:0-3-5,0-0-9], [21:0-3-0,0-4-4]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.91 | Vert(LL) | -0.31 | 17-19 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.84 | Vert(CT) | -0.54 | 17-19 | >930 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.63 | Horz(CT) | 0.11 | 11 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 280 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP SS *Except*
T1,T3: 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
B3: 2x4 SP No.3, B2: 2x6 SP No.1
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 - 3-9-8

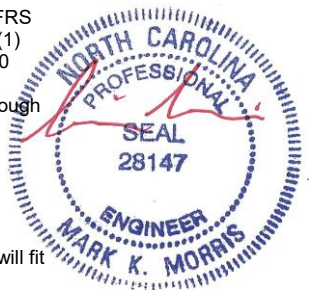
**BRACING-**
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
6-0-0 oc bracing: 15-20
WEBS 1 Row at midpt 5-21, 9-13

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1784/0-3-8 (min. 0-2-4), 11=1756/Mechanical
Max Horz 2=-131(LC 19)
Max Uplift 2=-60(LC 14), 11=-42(LC 15)
Max Grav 2=1925(LC 3), 11=1861(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-24=-3552/95, 3-24=-3468/112, 3-4=-3408/130, 4-5=-3332/158, 5-25=-2756/132, 25-26=-2695/141, 6-26=-2672/160, 6-27=-2962/195, 27-28=-2986/176, 7-28=-3048/167, 7-8=-2987/108, 8-9=-3035/81, 9-29=-3245/101, 10-29=-3264/86, 10-11=-3349/84
BOT CHORD 2-23=-138/3041, 23-30=-33/2660, 22-30=-33/2660, 21-22=-33/2660, 21-31=0/2076, 19-31=0/2076, 17-19=0/2076, 17-32=0/2076, 14-32=0/2076, 14-33=0/2076, 13-33=0/2076, 12-13=-18/2865, 11-12=-18/2865
WEBS 20-21=-53/1250, 6-20=-34/1325, 6-15=-128/1219, 13-15=-148/1154, 3-23=-273/155, 5-23=-86/578, 5-21=-717/207, 7-13=-552/184, 9-13=-412/135

**NOTES-** (12-15)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-6-8 to 3-7-9, Interior(1) 3-7-9 to 16-9-15, Exterior(2R) 16-9-15 to 25-2-1, Interior(1) 25-2-1 to 37-6-7, Exterior(2E) 37-6-7 to 41-8-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.




10/11/2021

Continued on page 2

**NOTES-** (12-15)

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
13) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
14) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
15) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R04 | Common | 5 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:45 2021 Page 1
ID:MPr2P9H?n?aoDn?CktxvnlzouW4-g7L7tGGa2wY6Zp3eXXmDotuebz0jiRMigCXB9ayU7i8

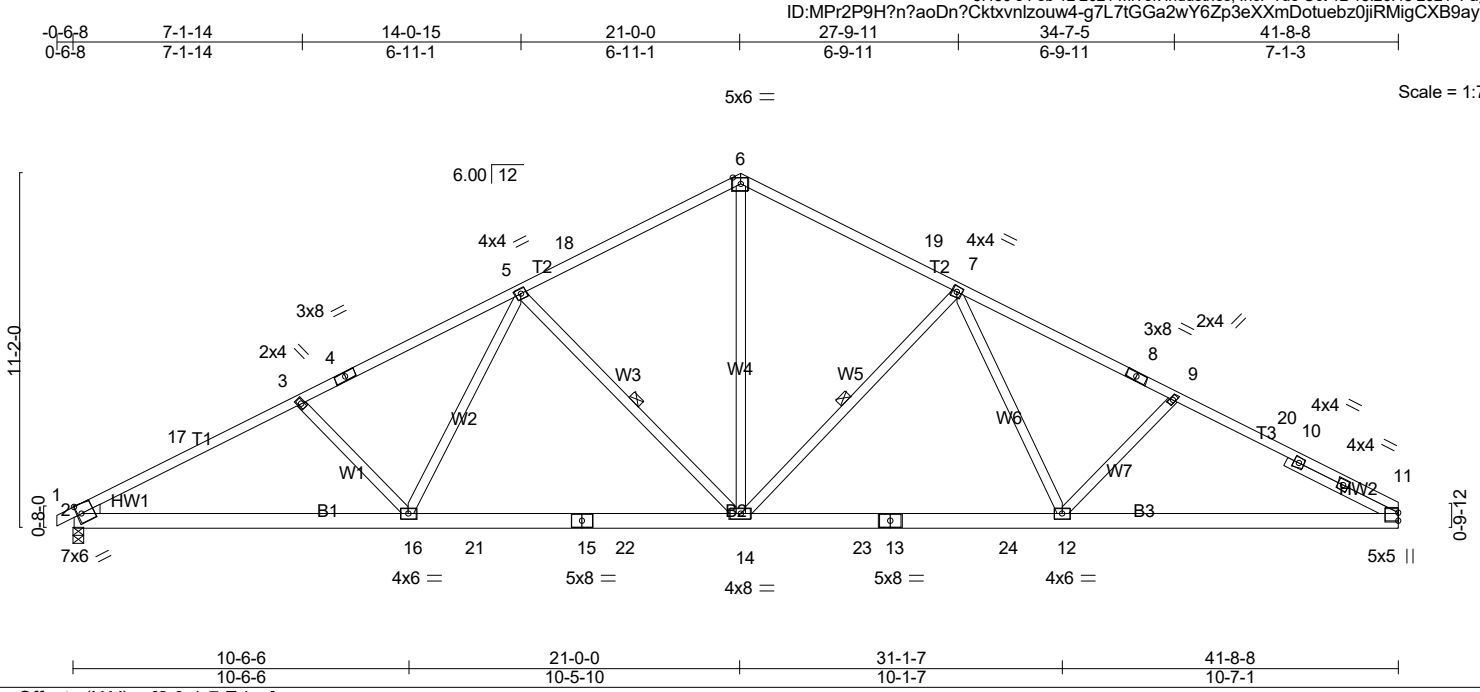



Plate Offsets (X,Y)-- [2:0-1-7,Edge]

| **LOADING** (psf) | | **SPACING-** 2-0-0 | **CSI.** | **DEFL.** in (loc) l/defl L/d | **PLATES** **GRIP** |
|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL 1.15 | TC 0.85 | Vert(LL) -0.25 14-16 >999 240 | MT20 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL 1.15 | BC 0.81 | Vert(CT) -0.43 14-16 >999 180 | |
| TCDL | 10.0 | Rep Stress Incr YES | WB 0.59 | Horz(CT) 0.10 11 n/a n/a | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | Matrix-SH | | Weight: 257 lb FT = 20% |
| BCDL | 10.0 | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.1 *Except* T1,T3: 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 - 3-10-13

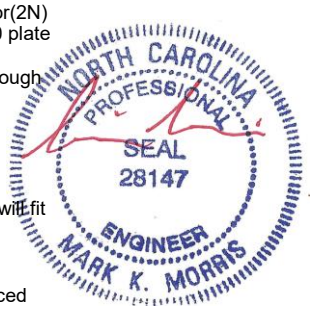
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 7-14

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 2=1704/0-3-8 (min. 0-2-0), 11=1662/Mechanical
Max Horz 2=-131(LC 15)
Max Uplift2=-99(LC 14), 11=-89(LC 15)
Max Grav 2=1704(LC 1), 11=1664(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-17=-3069/466, 3-17=-2985/484, 3-4=-2850/441, 4-5=-2708/470, 5-18=-2032/377, 6-18=-1947/405, 6-19=-1947/406, 7-19=-2032/378, 7-8=-2697/467, 8-9=-2763/439, 9-20=-2878/486, 10-20=-2895/472, 10-11=-2982/466
BOT CHORD 2-16=-321/2619, 16-21=-182/2230, 15-21=-182/2230, 15-22=-182/2230, 14-22=-182/2230, 14-23=-180/2209, 13-23=-180/2209, 13-24=-180/2209, 12-24=-180/2209, 11-12=-318/2540
WEBS 3-16=-296/180, 5-16=-40/585, 5-14=-812/222, 6-14=-219/1435, 7-14=-801/222, 7-12=-39/513, 9-12=-285/180

**NOTES-** (11-14)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 3-7-9, Exterior(2N) 3-7-9 to 16-9-15, Corner(3R) 16-9-15 to 25-2-1, Exterior(2N) 25-2-1 to 37-6-7, Corner(3E) 37-6-7 to 41-8-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.




10/11/2021

Continued on page 2

11) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
12) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
13) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
14) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R05 | GABLE | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:48 2021 Page 1
ID:MPr2P9H?n?aoDn?CktxvnlzouW4-5i0GVHISLrwhQGoDCfJwQWWLpACJvwl8MAlrmuyU7i5

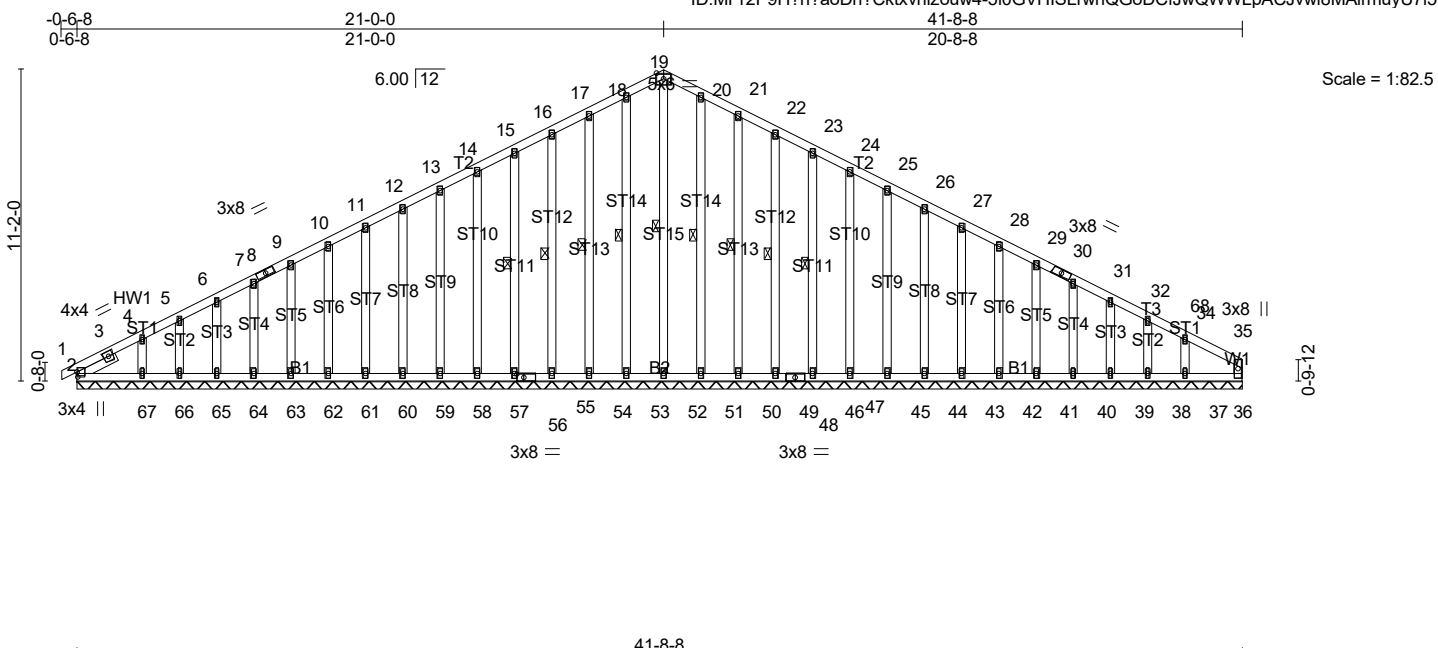



Plate Offsets (X,Y)-- [2:0-2-1,0-0-5], [56:0-3-0,0-1-8]

| LOADING (psf) | | SPACING- | 2-0-0 | CSI. | | DEFL. | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.08 | Vert(LL) | -0.00 | 1 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.11 | Vert(CT) | 0.00 | 1 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | 0.01 | 36 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 385 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 - 1-6-7

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 19-52, 18-53, 17-54, 16-55, 15-57, 20-51, 21-50, 22-49, 23-47

**REACTIONS.** All bearings 41-8-8.
(lb) - Max Horz 2=139(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 2, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 50, 49, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37
Max Grav All reactions 250 lb or less at joint(s) 36, 2, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 51, 50, 49, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 17-18=-133/261, 18-19=-137/270, 19-20=-137/270, 20-21=-133/261

**NOTES-** (14-17)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 3-8-0, Exterior(2N) 3-8-0 to 16-9-15, Corner(3R) 16-9-15 to 25-0-0, Exterior(2N) 25-0-0 to 37-4-11, Corner(3E) 37-4-11 to 41-6-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 1-4-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 50, 49, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


*10/11/2021*

Continued on page 2

14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R06 | COMMON GIRDER | 1 | 2 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:49 2021 Page 1
ID:MPr2P9H?n?aoDn?Cktxvnlzouw4-ZuaeidJ4692Y2QNQmNr9zj3HFaP1e9yHbqVOILyU7i4

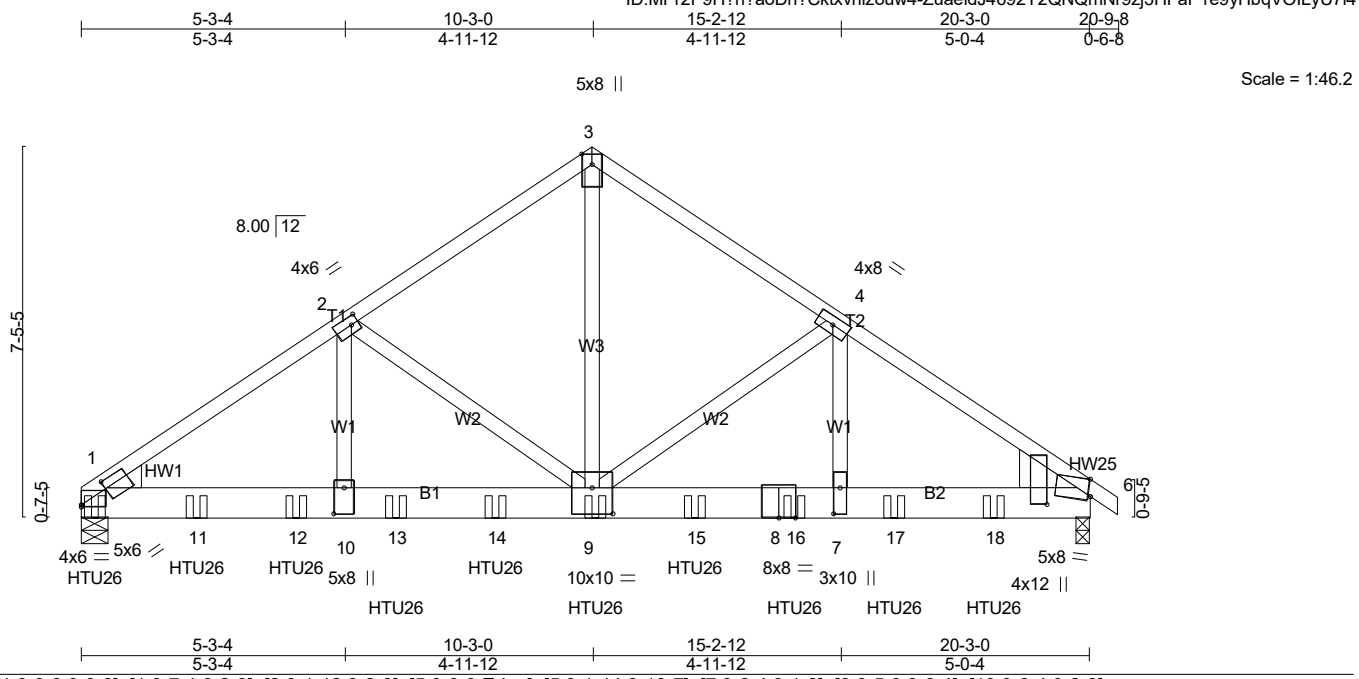



Plate Offsets (X,Y)-- [1:0-0-0,0-0-8], [1:0-7-1,0-2-0], [2:0-1-12,0-2-0], [5:0-0-9,Edge], [5:0-1-14,0-10-7], [7:0-6-4,0-1-8], [9:0-5-0,0-6-4], [10:0-6-4,0-2-8]

| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.99 | Vert(LL) | -0.13 | 9-10 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.65 | Vert(CT) | -0.26 | 9-10 | >919 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 1.00 | Horz(CT) | 0.06 | 5 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 285 lb | FT = 20% |

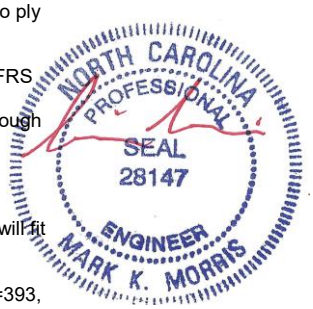
**LUMBER-**
TOP CHORD 2x4 SP No.1 *Except*
T2: 2x4 SP No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SP No.3 *Except*
W3: 2x4 SP No.1
WEDGE
Left: 2x6 SP No.2 , Right: 2x10 SP No.2

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 2-7-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 1=10087/0-6-8 (min. 0-5-7), 5=8400/0-3-8 (req. 0-4-5)
Max Horz 1=-123(LC 34)
Max Uplift1=-393(LC 10), 5=-445(LC 11)
Max Grav 1=10731(LC 3), 5=8489(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-12609/513, 2-3=-8424/443, 3-4=-8425/444, 4-5=-11846/609
BOT CHORD 1-11=-436/10151, 11-12=-436/10151, 10-12=-436/10151, 10-13=-436/10151, 13-14=-436/10151, 9-14=-436/10151, 9-15=-436/9449, 8-15=-436/9449, 8-16=-436/9449, 7-16=-436/9449, 7-17=-436/9449, 17-18=-436/9449, 5-18=-436/9449
WEBS 3-9=-416/9012, 4-9=-3198/293, 4-7=-206/4035, 2-9=-3976/201, 2-10=-88/4846

**NOTES-** (15-18)
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=21ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
9) WARNING: Required bearing size at joint(s) 5 greater than input bearing size.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=393, 5=445.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.




10/11/2021

Continued on page 2

**NOTES-** (15-18)

12) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss) or equivalent spaced at 2-0-8 oc max. starting at 0-3-4 from the left end to 8-3-12 to connect truss(es) R03 (1 ply 2x6 SP) to back face of bottom chord.
13) Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 10-3-12 from the left end to 18-3-12 to connect truss(es) R04 (1 ply 2x6 SP) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.
15) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
16) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
17) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
18) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-6=-60, 1-5=-20
   Concentrated Loads (lb)
   Vert: 1=-1737(B) 9=-1642(B) 11=-1728(B) 12=-1728(B) 13=-1728(B) 14=-1728(B) 15=-1642(B) 16=-1642(B) 17=-1642(B) 18=-1642(B)


10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | R07 | GABLE | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:51 2021 Page 1
ID:MPr2P9H?n?aoDn?CktxvnlzouW4-VHiO7JLLdmIGHkWototd288sbNF_6IAa28_VNDyU7i2

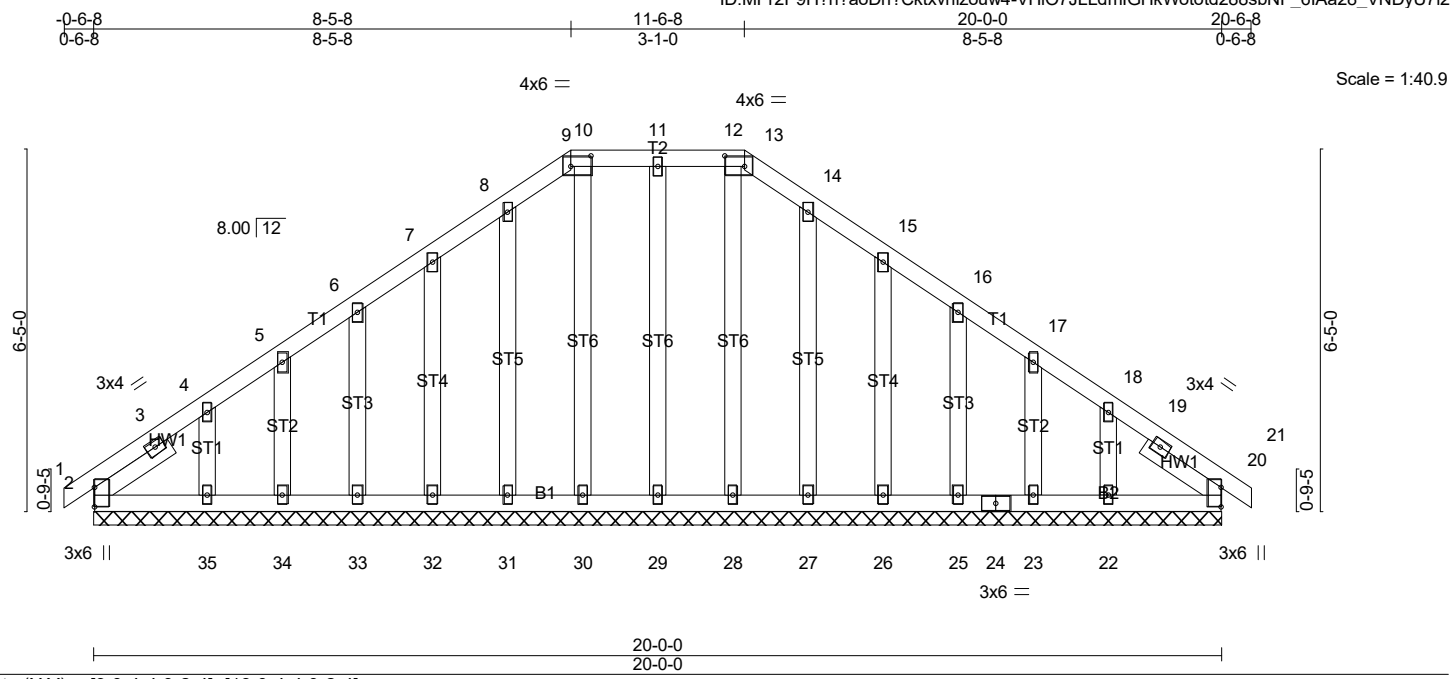



Plate Offsets (X,Y)-- [9:0-4-4,0-2-4], [13:0-4-4,0-2-4]

| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.04 | Vert(LL) | 0.00 | 20 | n/r | 180 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | 0.00 | 20 | n/r | 80 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 20 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-SH | | | | | | | Weight: 148 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 - 1-7-8, Right 2x4 SP No.3 - 1-7-8

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 20-0-0.
(lb) - Max Horz 2=-108(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 23, 22
Max Grav All reactions 250 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 28, 27, 26, 25, 23, 22, 20

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-** (14-17)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=22ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-6-8 to 3-4-0, Exterior(2N) 3-4-0 to 4-6-14, Corner(3R) 4-6-14 to 15-4-0, Exterior(2N) 15-4-0 to 16-7-14, Corner(3E) 16-7-14 to 20-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 1-4-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 23, 22.
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.


10/11/2021

Continued on page 2

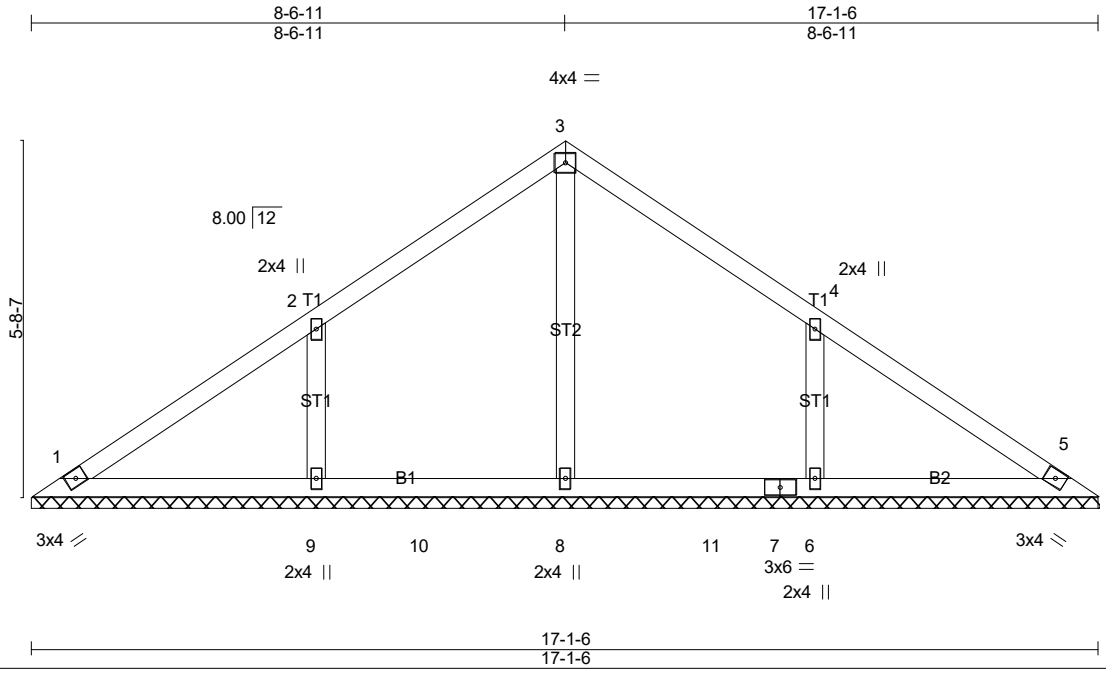
14) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
15) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
16) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
17) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


10/11/2021

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | VT01 | Valley | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:51 2021 Page 1
ID:MPr2P9H?n?aoDn?CktxvnlzouW4-VHiO7JLLdmIGHkWototd288pnNAa6Hda28_VNDyU7i2




**LOADING** (psf)

| | |
|---|---|
| TCLL (roof) | 20.0 |
| Snow (Pf) | 20.0 |
| TCDL | 10.0 |
| BCLL | 0.0 * |
| BCDL | 10.0 |

| **SPACING-** | 2-0-0 |
|---|---|
| Plate Grip DOL | 1.15 |
| Lumber DOL | 1.15 |
| Rep Stress Incr | YES |
| Code IRC2018/TPI2014 | |

| **CSI.** | |
|---|---|
| TC | 0.22 |
| BC | 0.33 |
| WB | 0.10 |
| Matrix-SH | |

| **DEFL.** | in | (loc) | l/defl | L/d |
|---|---|---|---|---|
| Vert(LL) | n/a | - | n/a | 999 |
| Vert(CT) | n/a | - | n/a | 999 |
| Horz(CT) | 0.00 | 5 | n/a | n/a |

| **PLATES** | **GRIP** |
|---|---|
| MT20 | 244/190 |

Weight: 69 lb FT = 20%

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

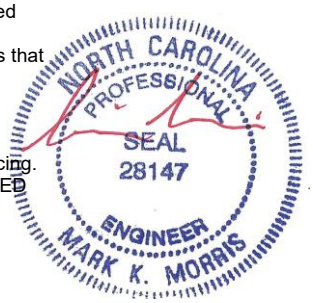
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 17-1-6.
(lb) - Max Horz 1=-95(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-100(LC 12), 6=-100(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=395(LC 19), 9=411(LC 19), 6=411(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-283/135, 4-6=-283/135

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=22ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 4-6-11, Exterior(2R) 4-6-11 to 12-6-11, Exterior(2E) 12-6-11 to 16-7-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=100, 6=100.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

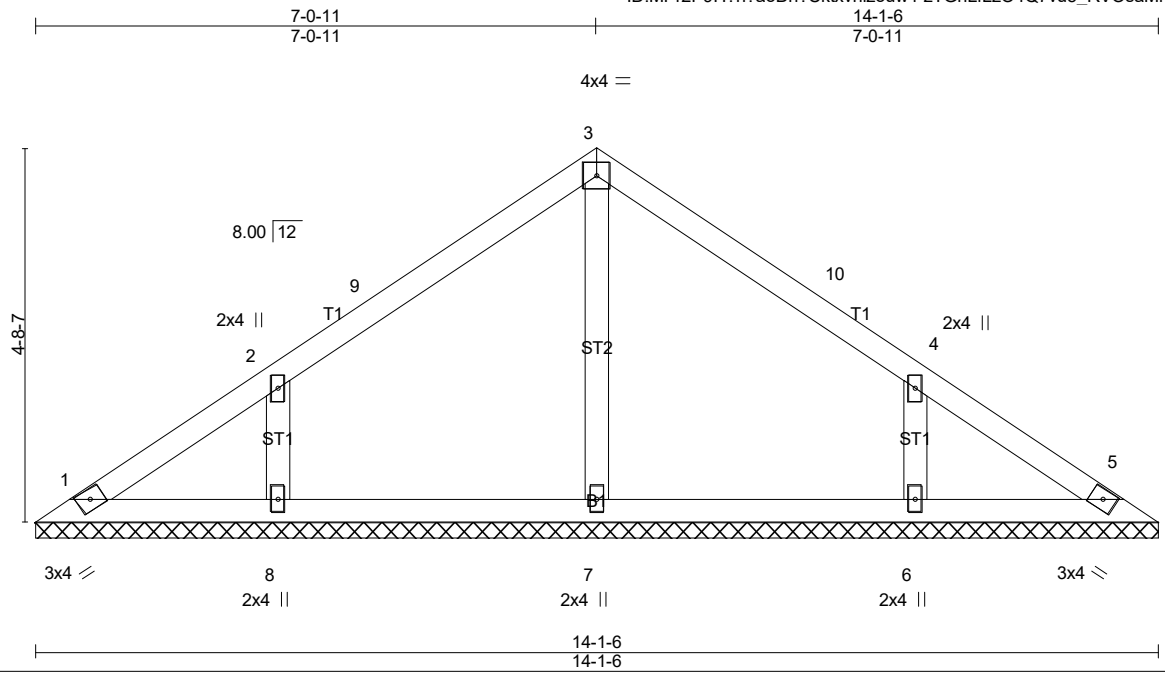



**LOAD CASE(S)** Standard

*10/11/2021*

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | VT02 | Valley | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:52 2021 Page 1
ID:MPr2P9H?n?aoDn?CktxvnlzouW4-zTGnLfLzO4Q7vu5_RVOsaMh?InYprkGkHoj3vgyU7i1




**LOADING** (psf)

| | |
|---|---|
| TCLL (roof) | 20.0 |
| Snow (Pf) | 20.0 |
| TCDL | 10.0 |
| BCLL | 0.0 * |
| BCDL | 10.0 |

| **SPACING-** | 2-0-0 |
|---|---|
| Plate Grip DOL | 1.15 |
| Lumber DOL | 1.15 |
| Rep Stress Incr | YES |
| Code | IRC2018/TPI2014 |

| **CSI.** | |
|---|---|
| TC | 0.18 |
| BC | 0.20 |
| WB | 0.07 |
| Matrix-SH | |

| **DEFL.** | in | (loc) | l/defl | L/d |
|---|---|---|---|---|
| Vert(LL) | n/a | - | n/a | 999 |
| Vert(CT) | n/a | - | n/a | 999 |
| Horz(CT) | 0.00 | 5 | n/a | n/a |

| **PLATES** | **GRIP** |
|---|---|
| MT20 | 244/190 |

Weight: 55 lb FT = 20%

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

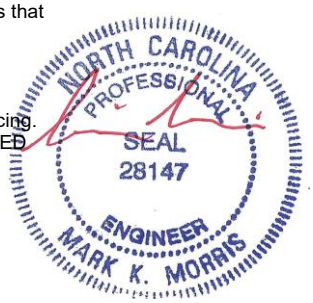
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** All bearings 14-1-6.
(lb) - Max Horz 1=-78(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=264(LC 1), 8=315(LC 23), 6=315(LC 30)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 4-4-6, Exterior(2R) 4-4-6 to 9-9-0, Exterior(2E) 9-9-0 to 13-7-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 6.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

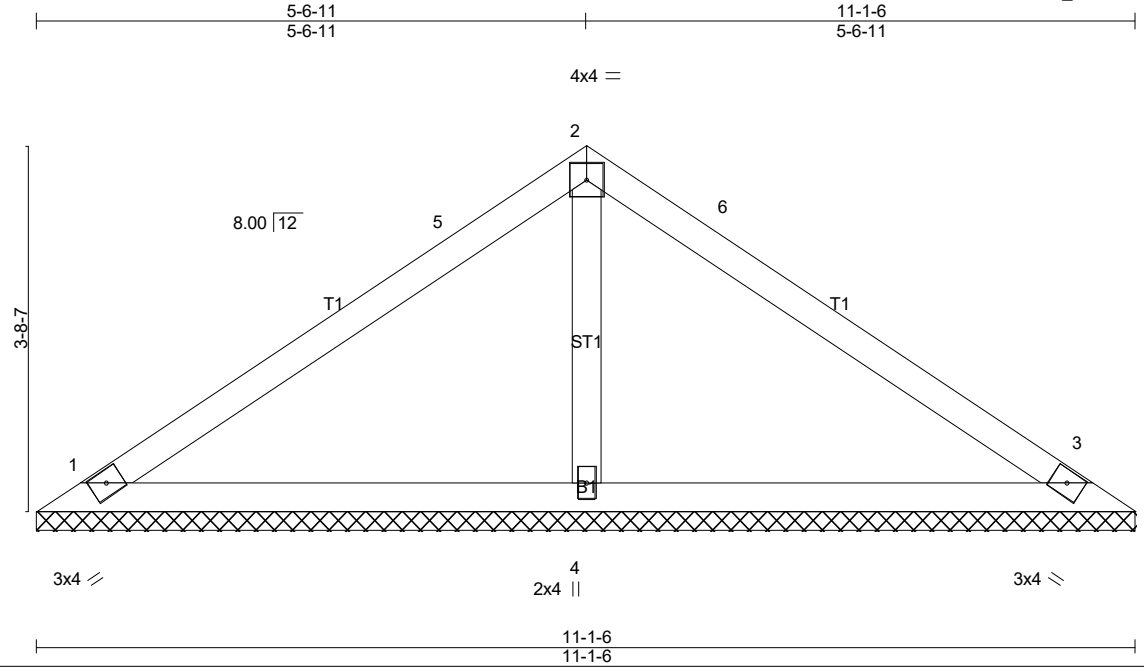



**LOAD CASE(S)** Standard

*10/11/2021*

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | VT03 | Valley | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:52 2021 Page 1
ID:MPr2P9H?n?aoDn?Cktxvnlzouw4-zTGnLfLzO4Q7vu5_RVOsaMhypnVFrkHkHoj3vgyU7i1




**LOADING** (psf)

| | |
|---|---|
| TCLL (roof) | 20.0 |
| Snow (Pf) | 20.0 |
| TCDL | 10.0 |
| BCLL | 0.0 * |
| BCDL | 10.0 |

| **SPACING-** | 2-0-0 |
|---|---|
| Plate Grip DOL | 1.15 |
| Lumber DOL | 1.15 |
| Rep Stress Incr | YES |
| Code IRC2018/TPI2014 | |

| **CSI.** | |
|---|---|
| TC | 0.33 |
| BC | 0.43 |
| WB | 0.07 |
| Matrix-SH | |

| **DEFL.** | in | (loc) | l/defl | L/d |
|---|---|---|---|---|
| Vert(LL) | n/a | - | n/a | 999 |
| Vert(CT) | n/a | - | n/a | 999 |
| Horz(CT) | 0.00 | 3 | n/a | n/a |

| **PLATES** | **GRIP** |
|---|---|
| MT20 | 244/190 |

Weight: 39 lb FT = 20%

**LUMBER-**

| | |
|---|---|
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.3 |
| OTHERS | 2x4 SP No.3 |

**BRACING-**

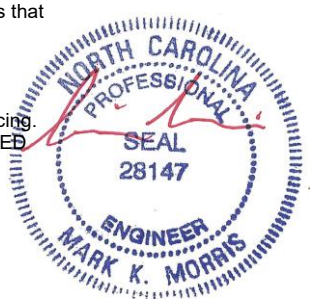
| | |
|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=195/11-1-6 (min. 0-1-8), 3=195/11-1-6 (min. 0-1-8), 4=422/11-1-6 (min. 0-1-8)
Max Horz 1=-61(LC 8)
Max Uplift1=-18(LC 12), 3=-27(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-253/61

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=23ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 4-4-6, Exterior(2R) 4-4-6 to 6-9-0, Exterior(2E) 6-9-0 to 10-7-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

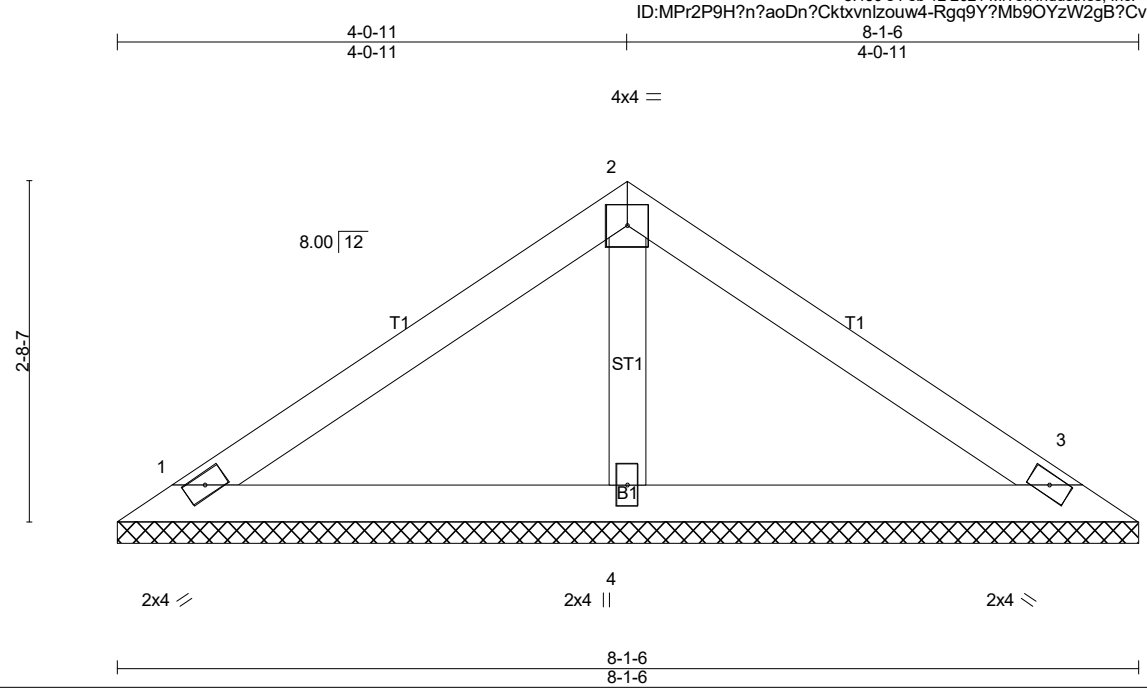



**LOAD CASE(S)** Standard

*10/11/2021*

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | VT04 | Valley | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:53 2021 Page 1
ID:MPr2P9H?n?aoDn?Cktxvnlzouw4-Rgq9Y?Mb9OYzW2gB?Cv57ZD9?BtlaC1tWSTcR6yU7i0




| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.24 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.22 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 28 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=154/8-1-6 (min. 0-1-8), 3=154/8-1-6 (min. 0-1-8), 4=264/8-1-6 (min. 0-1-8)
Max Horz 1=-43(LC 8)
Max Uplift1=-21(LC 12), 3=-27(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=24ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.

**LOAD CASE(S)** Standard


*10/11/2021*

| Job | Truss | Truss Type | Qty | Ply | 49786-0209 WOODGROVE \| FUQUAY VARINA, NC |
|---|---|---|---|---|---|
| 21-5964-R01 | VT05 | Valley | 1 | 1 | Job Reference (optional) **# 28965** |

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Oct 12 15:26:53 2021 Page 1
ID:MPr2P9H?n?aoDn?CktxvnIzouw4-Rgq9Y?Mb9OYzW2gB?Cv57ZDBdBrWaCdtWSTcR6yU7i0

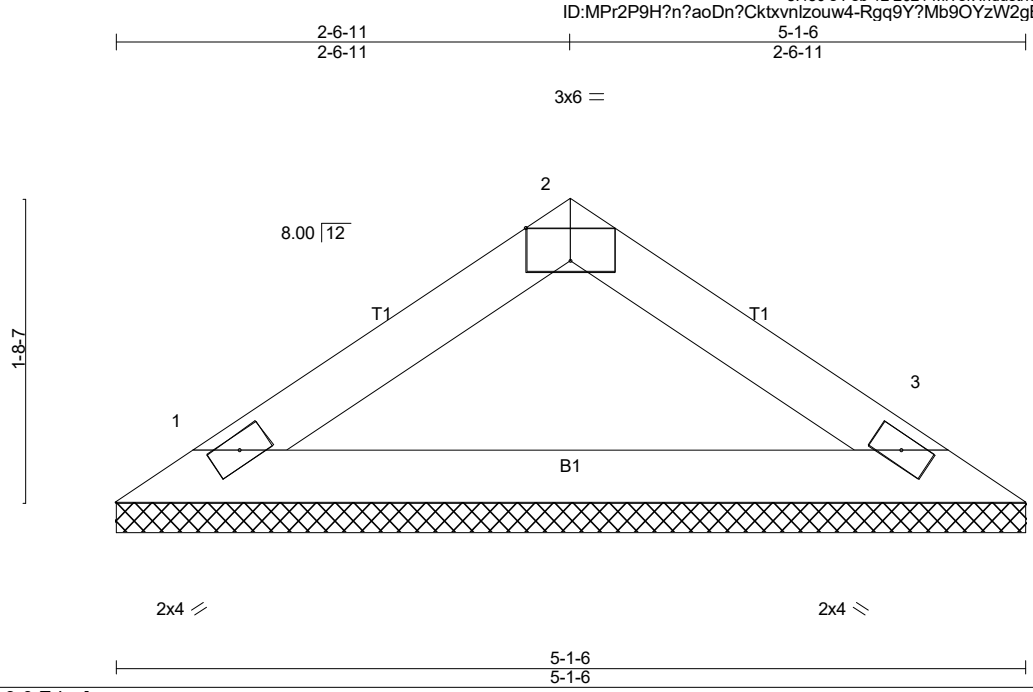



Plate Offsets (X,Y)-- [2:0-3-0,Edge]

| **LOADING** (psf) | | **SPACING-** | 2-0-0 | **CSI.** | | **DEFL.** | in | (loc) | l/defl | L/d | **PLATES** | **GRIP** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.07 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.36 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0 * | Code IRC2018/TPI2014 | | Matrix-P | | | | | | | Weight: 15 lb | FT = 20% |
| BCDL | 10.0 | | | | | | | | | | | |

**LUMBER-**
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3

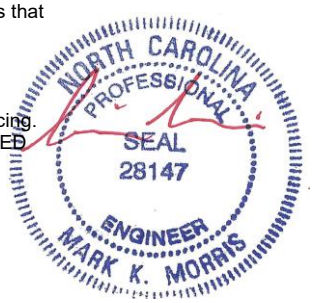
**BRACING-**
TOP CHORD Structural wood sheathing directly applied or 5-1-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS.** (lb/size) 1=166/5-1-6 (min. 0-1-8), 3=166/5-1-6 (min. 0-1-8)
Max Horz 1=25(LC 11)
Max Uplift1=-8(LC 12), 3=-8(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-** (9-12)
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=24ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical bracing representation does not depict the size, type or the orientation of the brace on the member. Symbol only indicates that the member must be braced.
10) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.
11) Web bracing shown is for lateral support of individual web members only. Refer to BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses for additional bracing guidelines, including diagonal bracing.
12) SEE BCSI-B3 SUMMARY SHEET- PERMANENT RESTRAING/BRACING OF CHORDS & WEB MEMBERS FOR RECOMMENDED MINIMUM BRACING REQUIREMENTS OF TOP CHORD, BOTTOM CHORD, AND WEB PLANES. IN ADDITION TO THESE MINIMUM GUIDELINES, ALWAYS CONSULT THE PROJECT ARCHITECT OR ENGINEER FOR ADDITIONAL BRACING CONSIDERATIONS.




**LOAD CASE(S)** Standard

*10/11/2021*